



A29542-FWC-I-R  
070037.0195

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Reissue Application For: United States Patent No. 5,804,184  
Title: TRANSGENIC PATHOGEN-RESISTANT ORGANISM  
Patent Appln. Filed: March 6, 1997  
Patent Issued: September 8, 1998  
Assignee: Max-Planck-Gesellschaft zur Förderung der Wissenschaften, e.V.,  
Göttingen, Germany  
Patent Group Art Unit: 1652  
Reissue Applicants: Jürgen Logemann, Guido Jach, Birgit Görnhardt, John Mundy,  
Jeff Schell, Peter Eckes and Ilan Chet  
Reissue Serial No.: 09/729,141  
Reissue Appln. Filed: December 1, 2000

REISSUE DECLARATION AND POWER OF ATTORNEY

**Mail Stop Reissue**

Commissioner for Patents  
Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

WE, Jürgen Logemann, Guido Jach, Birgit Görnhardt, John Mundy, Jeff Schell,  
Peter Eckes and Ilan Chet, the below named inventors, hereby declare as follows:

Our residences, post office addresses and citizenship are as stated below next to  
our names.

We believe that we are the original, first and joint inventors of the invention  
described and claimed in United States Letters Patent No. 5,804,184 ("the '184 patent"), entitled  
"TRANSGENIC PATHOGEN-RESISTANT ORGANISM", which issued on September 8,

1998, and of the above-identified reissue application, which is appended hereto and by which we solicit a reissue patent.

I. REVIEW OF PAPERS AND DUTY OF CANDOR

We have reviewed and understand the contents of the above-identified patent, including the issued claims, and the reissue application appended hereto, including the claims thereof.

We acknowledge the duty to disclose information which is material to the examination of this reissue application, in accordance with 37 C.F.R. §1.56.

II. PRIORITY CLAIM

The above-identified reissue application is based on the '184 patent which is a divisional of U.S.S.N. 457,797, filed June 1, 1995 and now United States Patent No. 5,689,045, which is a continuation of U.S.S.N. 134,416, filed October 8, 1993, abandoned, and we claim priority to these earlier applications under 35 U.S.C. §120. In addition, we claim priority to German Patent Application No. 42 34 131.0, filed October 9, 1992, under 35 U.S.C. §119.

III. OFFER TO SURRENDER ORIGINAL LETTERS PATENT

We and our assignee hereby offer to surrender the original letters patent, or provide an appropriate affidavit or declaration in the event that the original patent is lost, upon an indication of allowability of this reissue patent application.

IV. STATEMENT OF INOPERATIVENESS OF THE ISSUED PATENT

We believe the original patent to be wholly or partly inoperative because of error that arose without any deceptive intention on our parts as applicants therefor, which resulted in an erroneous sequence listing. In addition, certain additional errors have been noted, including (i) the omission of an inventor (Chet) from those inventors listed on the patent, despite the fact that inventor Chet had executed the Declaration of Inventorship submitted when the application that matured into the '184 patent was filed (therefore no true change in inventorship is required but the names listed on the patent should be amended); (ii) a misspelling of Assignee's name; and (iii) certain references, cited in the U.S. priority application, and one reference cited as background information in the corresponding German application, were not made of record in the divisional application which issued as the '184 patent. Each of the above-listed errors is discussed in detail below.

Every error which was corrected in the present reissue application, and is not covered by a prior/oath declaration submitted in this application, arose without any deceptive intention on the part of the applicants.

V. SPECIFICATION OF "ERRORS" RELIED UPON AND HOW THEY AROSE

A. THE ERRONEOUS SEQUENCE LISTING

The following is a description of the manner in which the errors specified below are believed to have occurred in the Sequence Listing of the '184 patent. Although the following account does not describe our own actions, on information and belief we believe it to be true.

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SEQ ID NOS: 4 and 5 provide, respectively, the nucleic acid and amino acid sequences of the PSI gene and protein from barley. The errors involve the nucleotide triplet codons for amino acid numbers 109, 138 and 139 (§4 of the Götte Declaration). Support from the original specification is provided at page 17, as contained in attachment B of the Götte Declaration, with enlarged views in attachments C and D of the Götte Declaration.

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Please make these references, all of which are now listed in the Information Disclosure Statement submitted herewith, of record.

VI. POWER OF ATTORNEY

Applicants and the assignee hereby appoint the attorneys associated with the Customer Number 21003 of the firm of Baker Botts, L.L.P., having an address at 30 Rockefeller Plaza, New York, NY 10112 as their attorneys, with full power of substitution and revocation, to prosecute this reissue application and to transact all business in the Patent and Trademark Office connected therewith, including Robert Neuner, Reg. No. 24,316; Bradley B. Geist, Reg. No. 27,551; Robert C. Scheinfeld, Reg. No. 31,300; Rochelle K. Seide Reg. No. 32,300; Gary M. Butter, Reg. No. 33,841; Lisa B. Kole, Reg. No. 35,225; Paul A. Ragusa, Reg. No. 38,587; Neil P. Sirota, Reg. No. 38,306; and Jeffrey D. Sullivan, Reg. No. 43,170.

Please address all communications regarding this application to:

Lisa B. Kole, Esq.

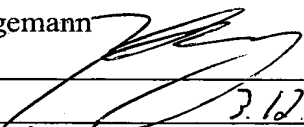
Baker Botts, L.L.P.

30 Rockefeller Plaza

New York, NY 10112

VII. DECLARATION

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of the Title 18 of the United States Code, and that such willful and false statements may jeopardize the validity of the application or any patent issued thereon.

Inventor	:	Jürgen Logemann
Inventor's Signature	:	
Date of Signature	:	3.12.04
Residence	:	67114 Limburgerhof, Germany
Citizenship	:	Germany
Post Office Address	:	Carl-Bosch-Str. 64 67114 Limburgerhof, Germany

Inventor	:	Guido Jach
Inventor's Signature	:	
Date of Signature	:	
Residence	:	51147 Köln, Germany
Citizenship	:	Germany
Post Office Address	:	Nibelungenstr. 28a 51147 Köln, Germany

Inventor : Birgit Görnhardt  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 51145 Köln  
Citizenship : Germany  
Post Office Address : c/o Bramer, Staelsweg 2  
51145 Köln, Germany

Inventor : John Mundy  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 1353 Copenhagen K, Denmark  
Citizenship : U.S.  
Post Office Address : c/o University of Copenhagen,  
Institute of Molecular Biology,  
Oester Farimagsgade 2A  
1353 Copenhagen K, Denmark



Inventor (deceased)\* : Jeff Schell  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : \_\_\_\_\_  
Citizenship : Belgium  
Post Office Address : \_\_\_\_\_  
\_\_\_\_\_

Legal Successor to Jeff Schell: Elizabeth Schell-Frederick  
Legal Successor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 53179 Bonn, Germany  
Citizenship : \_\_\_\_\_  
Post Office Address : Rolandstr. 7,  
53179 Bonn, Germany

(\* see attached copy of document of successorship, together with a translation thereof)

Inventor : Peter Eckes  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 65779 Kelkheim, Germany  
Citizenship : Germany  
Post Office Address : Gagernring 104,  
65779 Kelkheim, Germany

Inventor : Ilan Chet  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 76100 Rehovot, Israel  
Citizenship : Israel  
Post Office Address : c/o neve metz no. 14, Weizmann Institute of Science  
76100 Rehovot, Israel

English translation of the Document of Successorship concerning the deceased Inventor, Mr. Schell

35 VI 684/03

2<sup>nd</sup> Sample

DOCUMENT OF SUCCESSORSHIP

Sole heiress of

Prof. Dr. Joseph Schell, born July 20, 1935

deceased on April 17, 2003, at last having residence at Köln, having Belgian Citizenship,  
is his wife:

Dr. Elizabeth Schell-Frederick, maiden name: Frederick,  
born April 6, 1938, Carl-von Linné-Weg 12, 50829 Köln.

Köln, dated November 12, 2003

District Court, Dept. 35

Reimann

Judge of District Court

written by

(Signature)

(Stamp of the District Court of Köln)

Employee of the Court

having function as

Clerk of the Court

of the Office

To: Notary Public  
Friedrich Broß  
Thomas-Mann-Str. 37  
53111 Bonn  
re: UR.-Nr.: 02B2116/PU



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Baker Botts, L.L.P.

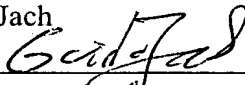
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Inventor	:	Jürgen Logemann
Inventor's Signature	:	_____
Date of Signature	:	_____
Residence	:	<u>67114 Limburgerhof, Germany</u>
Citizenship	:	Germany
Post Office Address	:	<u>Carl-Bosch-Str. 64</u> <u>67114 Limburgerhof, Germany</u>

Inventor	:	Guido Jach
Inventor's Signature	:	<u></u>
Date of Signature	:	<u>9/12/04</u>
Residence	:	<u>51147 Köln, Germany</u>
Citizenship	:	Germany
Post Office Address	:	<u>Nibelungenstr. 28a</u> <u>51147 Köln, Germany</u>

Inventor : Birgit Görnhardt  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 51145 Köln  
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Post Office Address : c/o Bramer, Staelsweg 2  
51145 Köln, Germany

Inventor : John Mundy  
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Residence : 1353 Copenhagen K, Denmark  
Citizenship : U.S.  
Post Office Address : c/o University of Copenhagen,  
Institute of Molecular Biology,  
Oester Farimagsgade 2A  
1353 Copenhagen K, Denmark

Inventor (deceased)\* : Jeff Schell  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : \_\_\_\_\_  
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Post Office Address : \_\_\_\_\_  
\_\_\_\_\_

Legal Successor to Jeff Schell: Elizabeth Schell-Frederick  
Legal Successor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 53179 Bonn, Germany  
Citizenship : \_\_\_\_\_  
Post Office Address : Rolandstr. 7,  
53179 Bonn, Germany

(\* see attached copy of document of successorship, together with a translation thereof)

Inventor : Peter Eckes  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 65779 Kelkheim, Germany  
Citizenship : Germany  
Post Office Address : Gagemring 104,  
65779 Kelkheim, Germany

Inventor : Ilan Chet  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 76100 Rehovot, Israel  
Citizenship : Israel  
Post Office Address : c/o Weizmann Institute of Science  
76100 Rehovot, Israel

English translation of the Document of Successorship concerning the deceased Inventor, Mr. Schell

35 VI 684/03

2<sup>nd</sup> Sample

DOCUMENT OF SUCCESSORSHIP

Sole heiress of

Prof. Dr. Joseph Schell, born July 20, 1935

deceased on April 17, 2003, at last having residence at Köln, having Belgian Citizenship,  
is his wife:

Dr. Elizabeth Schell-Frederick, maiden name: Frederick,  
born April 6, 1938, Carl-von Linné-Weg 12, 50829 Köln.

Köln, dated November 12, 2003

District Court, Dept. 35

Reimann

Judge of District Court

written by

(Signature)

(Stamp of the District Court of Köln)

Employee of the Court

having function as

Clerk of the Court

of the Office

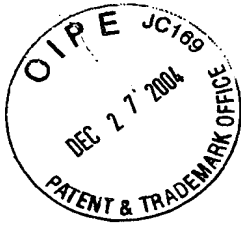
To: Notary Public

Friedrich Broß

Thomas-Mann-Str. 37

53111 Bonn

re: UR.-Nr.: 02B2116/PU



A29542-FWC-I-R  
070037.0195

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Reissue Application For: United States Patent No. 5,804,184  
Title: TRANSGENIC PATHOGEN-RESISTANT ORGANISM  
Patent Appln. Filed: March 6, 1997  
Patent Issued: September 8, 1998  
Assignee: Max-Planck-Gesellschaft zur Förderung der Wissenschaften, e.V.,  
Göttingen, Germany  
Patent Group Art Unit: 1652  
Reissue Applicants: Jürgen Logemann, Guido Jach, Birgit Görnhardt, John Mundy,  
Jeff Schell, Peter Eckes and Ilan Chet  
Reissue Serial No.: 09/729,141  
Reissue Appln. Filed: December 1, 2000

REISSUE DECLARATION AND POWER OF ATTORNEY

**Mail Stop Reissue**

Commissioner for Patents  
Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

WE, Jürgen Logemann, Guido Jach, Birgit Görnhardt, John Mundy, Jeff Schell,  
Peter Eckes and Ilan Chet, the below named inventors, hereby declare as follows:

Our residences, post office addresses and citizenship are as stated below next to  
our names.

We believe that we are the original, first and joint inventors of the invention  
described and claimed in United States Letters Patent No. 5,804,184 ("the '184 patent"), entitled  
"TRANSGENIC PATHOGEN-RESISTANT ORGANISM", which issued on September 8,

1998, and of the above-identified reissue application, which is appended hereto and by which we solicit a reissue patent.

I. REVIEW OF PAPERS AND DUTY OF CANDOR

We have reviewed and understand the contents of the above-identified patent, including the issued claims, and the reissue application appended hereto, including the claims thereof.

We acknowledge the duty to disclose information which is material to the examination of this reissue application, in accordance with 37 C.F.R. §1.56.

II. PRIORITY CLAIM

The above-identified reissue application is based on the '184 patent which is a divisional of U.S.S.N. 457,797, filed June 1, 1995 and now United States Patent No. 5,689,045, which is a continuation of U.S.S.N. 134,416, filed October 8, 1993, abandoned, and we claim priority to these earlier applications under 35 U.S.C. §120. In addition, we claim priority to German Patent Application No. 42 34 131.0, filed October 9, 1992, under 35 U.S.C. §119.

III. OFFER TO SURRENDER ORIGINAL LETTERS PATENT

We and our assignee hereby offer to surrender the original letters patent, or provide an appropriate affidavit or declaration in the event that the original patent is lost, upon an indication of allowability of this reissue patent application.

IV. STATEMENT OF INOPERATIVENESS OF THE ISSUED PATENT

We believe the original patent to be wholly or partly inoperative because of error that arose without any deceptive intention on our parts as applicants therefor, which resulted in an erroneous sequence listing. In addition, certain additional errors have been noted, including (i) the omission of an inventor (Chet) from those inventors listed on the patent, despite the fact that inventor Chet had executed the Declaration of Inventorship submitted when the application that matured into the '184 patent was filed (therefore no true change in inventorship is required but the names listed on the patent should be amended); (ii) a misspelling of Assignee's name; and (iii) certain references, cited in the U.S. priority application, and one reference cited as background information in the corresponding German application, were not made of record in the divisional application which issued as the '184 patent. Each of the above-listed errors is discussed in detail below.



Every error which was corrected in the present reissue application, and is not covered by a prior/oath declaration submitted in this application, arose without any deceptive intention on the part of the applicants.

V. SPECIFICATION OF "ERRORS" RELIED UPON AND HOW THEY AROSE

A. THE ERRONEOUS SEQUENCE LISTING

The following is a description of the manner in which the errors specified below are believed to have occurred in the Sequence Listing of the '184 patent. Although the following account does not describe our own actions, on information and belief we believe it to be true.

As set forth in the attached copy of the Declaration of Dr. Anna Götte (the "Götte Declaration"; Exhibit 1), submitted in United States Patent Application Serial No. 09/138,873, a divisional application of the '184 patent, the licensee of the above-identified application notified the German Patent Law firm which employs Dr. Götte, Wuesthoff & Wuesthoff, that several errors exist in the nucleic acid and amino acid sequences set forth as SEQ ID NOS:4 and 5 (¶4 of the Götte Declaration). Dr. Götte, who was the person responsible for preparing the Sequence Listing, states, in her Declaration, that the basis for these errors was an inadvertent good faith misreading of the nucleic acid sequences present in the original disclosure. When amino acid sequences corresponding to the erroneous nucleic acid sequences were generated by PatentIn computer software, they contained, in two of the three instances, an erroneous amino acid.

SEQ ID NOS: 4 and 5 provide, respectively, the nucleic acid and amino acid sequences of the PSI gene and protein from barley. The errors involve the nucleotide triplet codons for amino acid numbers 109, 138 and 139 (¶4 of the Götte Declaration). Support from the original specification is provided at page 17, as contained in attachment B of the Götte Declaration, with enlarged views in attachments C and D of the Götte Declaration.

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Please make these references, all of which are now listed in the Information Disclosure Statement submitted herewith, of record.

VI. POWER OF ATTORNEY

Applicants and the assignee hereby appoint the attorneys associated with the Customer Number 21003 of the firm of Baker Botts, L.L.P., having an address at 30 Rockefeller Plaza, New York, NY 10112 as their attorneys, with full power of substitution and revocation, to prosecute this reissue application and to transact all business in the Patent and Trademark Office connected therewith, including Robert Neuner, Reg. No. 24,316; Bradley B. Geist, Reg. No. 27,551; Robert C. Scheinfeld, Reg. No. 31,300; Rochelle K. Seide Reg. No. 32,300; Gary M. Butter, Reg. No. 33,841; Lisa B. Kole, Reg. No. 35,225; Paul A. Ragusa, Reg. No. 38,587; Neil P. Sirota, Reg. No. 38,306; and Jeffrey D. Sullivan, Reg. No. 43,170.

Please address all communications regarding this application to:

Lisa B. Kole, Esq.

Baker Botts, L.L.P.

30 Rockefeller Plaza

New York, NY 10112

VII. DECLARATION

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of the Title 18 of the United States Code, and that such willful and false statements may jeopardize the validity of the application or any patent issued thereon.

Inventor	:	Jürgen Logemann
Inventor's Signature	:	_____
Date of Signature	:	_____
Residence	:	<u>67114 Limburgerhof, Germany</u>
Citizenship	:	Germany
Post Office Address	:	<u>Carl-Bosch-Str. 64</u> <u>67114 Limburgerhof, Germany</u>

Inventor	:	Guido Jach
Inventor's Signature	:	_____
Date of Signature	:	_____
Residence	:	<u>51147 Köln, Germany</u>
Citizenship	:	Germany
Post Office Address	:	<u>Nibelungenstr. 28a</u> <u>51147 Köln, Germany</u>

Inventor : Birgit Görnhardt  
Inventor's Signature : Birgit Görnhardt  
Date of Signature : 30.11.2004  
Residence : 51145 Köln  
Citizenship : Germany  
Post Office Address : c/o Bramer, Staelsweg 2  
51145 Köln, Germany

Inventor : John Mundy  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 1353 Copenhagen K, Denmark  
Citizenship : U.S.  
Post Office Address : c/o University of Copenhagen,  
Institute of Molecular Biology,  
Oester Farimagsgade 2A  
1353 Copenhagen K, Denmark

Inventor (deceased)\* : Jeff Schell  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : \_\_\_\_\_  
Citizenship : Belgium  
Post Office Address : \_\_\_\_\_  
\_\_\_\_\_

Legal Successor to Jeff Schell: Elizabeth Schell-Frederick  
Legal Successor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 53179 Bonn, Germany  
Citizenship : \_\_\_\_\_  
Post Office Address : Rolandstr. 7,  
53179 Bonn, Germany

(\* see attached copy of document of successorship, together with a translation thereof)

Inventor : Peter Eckes  
Inventor's Signature : \_\_\_\_\_  
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Citizenship : Germany  
Post Office Address : Gagernring 104,  
65779 Kelkheim, Germany

Inventor : Ilan Chet  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 76100 Rehovot, Israel  
Citizenship : Israel  
Post Office Address : c/o Weizmann Institute of Science  
76100 Rehovot, Israel



English translation of the Document of Successorship concerning the deceased Inventor, Mr. Schell

35 VI 684/03

2<sup>nd</sup> Sample

DOCUMENT OF SUCCESSORSHIP

Sole heiress of

Prof. Dr. Joseph Schell, born July 20, 1935

deceased on April 17, 2003, at last having residence at Köln, having Belgian Citizenship,  
is his wife:

Dr. Elizabeth Schell-Frederick, maiden name: Frederick,  
born April 6, 1938, Carl-von Linné-Weg 12, 50829 Köln.

Köln, dated November 12, 2003

District Court, Dept. 35

Reimann

Judge of District Court

written by

(Signature)

(Stamp of the District Court of Köln)

Employee of the Court

having function as

Clerk of the Court

of the Office

To: Notary Public  
Friedrich Broß  
Thomas-Mann-Str. 37  
53111 Bonn  
re: UR.-Nr.: 02B2116/PU



A29542-FWC-I-R  
070037.0195

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Reissue Application For: United States Patent No. 5,804,184  
Title: TRANSGENIC PATHOGEN-RESISTANT ORGANISM  
Patent Appln. Filed: March 6, 1997  
Patent Issued: September 8, 1998  
Assignee: Max-Planck-Gesellschaft zur Förderung der Wissenschaften, e.V.,  
Göttingen, Germany  
Patent Group Art Unit: 1652  
Reissue Applicants: Jürgen Logemann, Guido Jach, Birgit Görnhardt, John Mundy,  
Jeff Schell, Peter Eckes and Ilan Chet  
Reissue Serial No.: 09/729,141  
Reissue Appln. Filed: December 1, 2000

REISSUE DECLARATION AND POWER OF ATTORNEY

**Mail Stop Reissue**

Commissioner for Patents  
Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

WE, Jürgen Logemann, Guido Jach, Birgit Görnhardt, John Mundy, Jeff Schell, Peter Eckes and Ilan Chet, the below named inventors, hereby declare as follows:

Our residences, post office addresses and citizenship are as stated below next to our names.

We believe that we are the original, first and joint inventors of the invention described and claimed in United States Letters Patent No. 5,804,184 ("the '184 patent"), entitled "TRANSGENIC PATHOGEN-RESISTANT ORGANISM", which issued on September 8,

1998, and of the above-identified reissue application, which is appended hereto and by which we solicit a reissue patent.

I. REVIEW OF PAPERS AND DUTY OF CANDOR

We have reviewed and understand the contents of the above-identified patent, including the issued claims, and the reissue application appended hereto, including the claims thereof.

We acknowledge the duty to disclose information which is material to the examination of this reissue application, in accordance with 37 C.F.R. §1.56.

II. PRIORITY CLAIM

The above-identified reissue application is based on the '184 patent which is a divisional of U.S.S.N. 457,797, filed June 1, 1995 and now United States Patent No. 5,689,045, which is a continuation of U.S.S.N. 134,416, filed October 8, 1993, abandoned, and we claim priority to these earlier applications under 35 U.S.C. §120. In addition, we claim priority to German Patent Application No. 42 34 131.0, filed October 9, 1992, under 35 U.S.C. §119.

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A. THE ERRONEOUS SEQUENCE LISTING

The following is a description of the manner in which the errors specified below are believed to have occurred in the Sequence Listing of the '184 patent. Although the following account does not describe our own actions, on information and belief we believe it to be true.

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Please address all communications regarding this application to:

Lisa B. Kole, Esq.

Baker Botts, L.L.P.

30 Rockefeller Plaza

New York, NY 10112

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We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of the Title 18 of the United States Code, and that such willful and false statements may jeopardize the validity of the application or any patent issued thereon.

Inventor	:	Jürgen Logemann
Inventor's Signature	:	_____
Date of Signature	:	_____
Residence	:	<u>67114 Limburgerhof, Germany</u>
Citizenship	:	Germany
Post Office Address	:	<u>Carl-Bosch-Str. 64</u> <u>67114 Limburgerhof, Germany</u>

Inventor	:	Guido Jach
Inventor's Signature	:	_____
Date of Signature	:	_____
Residence	:	<u>51147 Köln, Germany</u>
Citizenship	:	Germany
Post Office Address	:	<u>Nibelungenstr. 28a</u> <u>51147 Köln, Germany</u>



Inventor : Birgit Görnhardt  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 51145 Köln  
Citizenship : Germany  
Post Office Address : c/o Bramer, Staelsweg 2  
51145 Köln, Germany

Inventor : John Mundy  
Inventor's Signature : *John L. Mundy*  
Date of Signature : 28/11/07  
Residence : 1353 Copenhagen K, Denmark  
Citizenship : U.S.  
Post Office Address : c/o University of Copenhagen,  
Institute of Molecular Biology,  
Oester Farimagsgade 2A  
1353 Copenhagen K, Denmark

Inventor (deceased)\* : Jeff Schell  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : \_\_\_\_\_  
Citizenship : Belgium  
Post Office Address : \_\_\_\_\_  
\_\_\_\_\_

Legal Successor to Jeff Schell: Elizabeth Schell-Frederick  
Legal Successor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 53179 Bonn, Germany  
Citizenship : \_\_\_\_\_  
Post Office Address : Rolandstr. 7,  
53179 Bonn, Germany

(\* see attached copy of document of successorship, together with a translation thereof)

Inventor : Peter Eckes  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 65779 Kelkheim, Germany  
Citizenship : Germany  
Post Office Address : Gagering 104,  
65779 Kelkheim, Germany

Inventor : Ilan Chet  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 76100 Rehovot, Israel  
Citizenship : Israel  
Post Office Address : c/o Weizmann Institute of Science  
76100 Rehovot, Israel

English translation of the Document of Successorship concerning the deceased Inventor, Mr. Schell

35 VI 684/03

2<sup>nd</sup> Sample

DOCUMENT OF SUCCESSORSHIP

Sole heiress of

Prof. Dr. Joseph Schell, born July 20, 1935

deceased on April 17, 2003, at last having residence at Köln, having Belgian Citizenship,  
is his wife:

Dr. Elizabeth Schell-Frederick, maiden name: Frederick,  
born April 6, 1938, Carl-von Linné-Weg 12, 50829 Köln.

Köln, dated November 12, 2003

District Court, Dept. 35

Reimann

Judge of District Court

written by

(Signature)

(Stamp of the District Court of Köln)

Employee of the Court

having function as

Clerk of the Court

of the Office

To: Notary Public  
Friedrich Broß  
Thomas-Mann-Str. 37  
53111 Bonn  
re: UR.-Nr.: 02B2116/PU



A29542-FWC-I-R  
070037.0195

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Reissue Application For: United States Patent No. 5,804,184  
Title: TRANSGENIC PATHOGEN-RESISTANT ORGANISM  
Patent Appln. Filed: March 6, 1997  
Patent Issued: September 8, 1998  
Assignee: Max-Planck-Gesellschaft zur Förderung der Wissenschaften, e.V.,  
Göttingen, Germany  
Patent Group Art Unit: 1652  
Reissue Applicants: Jürgen Logemann, Guido Jach, Birgit Görnhardt, John Mundy,  
Jeff Schell, Peter Eckes and Ilan Chet  
Reissue Serial No.: 09/729,141  
Reissue Appln. Filed: December 1, 2000

REISSUE DECLARATION AND POWER OF ATTORNEY

**Mail Stop Reissue**

Commissioner for Patents  
Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

WE, Jürgen Logemann, Guido Jach, Birgit Görnhardt, John Mundy, Jeff Schell, Peter Eckes and Ilan Chet, the below named inventors, hereby declare as follows:

Our residences, post office addresses and citizenship are as stated below next to our names.

We believe that we are the original, first and joint inventors of the invention described and claimed in United States Letters Patent No. 5,804,184 ("the '184 patent"), entitled "TRANSGENIC PATHOGEN-RESISTANT ORGANISM", which issued on September 8,

1998, and of the above-identified reissue application, which is appended hereto and by which we solicit a reissue patent.

I. REVIEW OF PAPERS AND DUTY OF CANDOR

We have reviewed and understand the contents of the above-identified patent, including the issued claims, and the reissue application appended hereto, including the claims thereof.

We acknowledge the duty to disclose information which is material to the examination of this reissue application, in accordance with 37 C.F.R. §1.56.

II. PRIORITY CLAIM

The above-identified reissue application is based on the '184 patent which is a divisional of U.S.S.N. 457,797, filed June 1, 1995 and now United States Patent No. 5,689,045, which is a continuation of U.S.S.N. 134,416, filed October 8, 1993, abandoned, and we claim priority to these earlier applications under 35 U.S.C. §120. In addition, we claim priority to German Patent Application No. 42 34 131.0, filed October 9, 1992, under 35 U.S.C. §119.

III. OFFER TO SURRENDER ORIGINAL LETTERS PATENT

We and our assignee hereby offer to surrender the original letters patent, or provide an appropriate affidavit or declaration in the event that the original patent is lost, upon an indication of allowability of this reissue patent application.

IV. STATEMENT OF INOPERATIVENESS OF THE ISSUED PATENT

We believe the original patent to be wholly or partly inoperative because of error that arose without any deceptive intention on our parts as applicants therefor, which resulted in an erroneous sequence listing. In addition, certain additional errors have been noted, including (i) the omission of an inventor (Chet) from those inventors listed on the patent, despite the fact that inventor Chet had executed the Declaration of Inventorship submitted when the application that matured into the '184 patent was filed (therefore no true change in inventorship is required but the names listed on the patent should be amended); (ii) a misspelling of Assignee's name; and (iii) certain references, cited in the U.S. priority application, and one reference cited as background information in the corresponding German application, were not made of record in the divisional application which issued as the '184 patent. Each of the above-listed errors is discussed in detail below.

Every error which was corrected in the present reissue application, and is not covered by a prior/oath declaration submitted in this application, arose without any deceptive intention on the part of the applicants.

V. SPECIFICATION OF "ERRORS" RELIED UPON AND HOW THEY AROSE

A. THE ERRONEOUS SEQUENCE LISTING

The following is a description of the manner in which the errors specified below are believed to have occurred in the Sequence Listing of the '184 patent. Although the following account does not describe our own actions, on information and belief we believe it to be true.

As set forth in the attached copy of the Declaration of Dr. Anna Götte (the "Götte Declaration"; Exhibit 1), submitted in United States Patent Application Serial No. 09/138,873, a divisional application of the '184 patent, the licensee of the above-identified application notified the German Patent Law firm which employs Dr. Götte, Wuesthoff & Wuesthoff, that several errors exist in the nucleic acid and amino acid sequences set forth as SEQ ID NOS:4 and 5 (§4 of the Götte Declaration). Dr. Götte, who was the person responsible for preparing the Sequence Listing, states, in her Declaration, that the basis for these errors was an inadvertent good faith misreading of the nucleic acid sequences present in the original disclosure. When amino acid sequences corresponding to the erroneous nucleic acid sequences were generated by PatentIn computer software, they contained, in two of the three instances, an erroneous amino acid.

SEQ ID NOS: 4 and 5 provide, respectively, the nucleic acid and amino acid sequences of the PSI gene and protein from barley. The errors involve the nucleotide triplet codons for amino acid numbers 109, 138 and 139 (§4 of the Götte Declaration). Support from the original specification is provided at page 17, as contained in attachment B of the Götte Declaration, with enlarged views in attachments C and D of the Götte Declaration.

Specifically, in the first error, the triplet encoding amino acid number 109, GGC in SEQ ID NO:4 of the Sequence Listing (see highlighted attachment A of the Götte Declaration), should be GCC. This is supported by the original specification at page 17 line 7 (§6 of the Götte Declaration). Note that the amino acid numbering differs by +1 because the original methionine residue was assigned a value of -1 in the original specification but is +1 in the Sequence Listing (§5 of the Götte Declaration). The codon for amino acid number 109, amino acid number 108 in the specification, is GCC, and the encoded amino acid is alanine. Because of inadvertent misreading, this "GCC" was entered into SEQ ID NO:4 as GGC, which encodes for glycine, not alanine. Accordingly, because the PatentIn software translates GGC as encoding glycine, SEQ ID NO:5 erroneously lists glycine as amino acid number 109. This

discrepancy between the amino acid listed for position 109 in the specification and that generated by PatentIn is a confirmation that an error had been made, but was inadvertently overlooked until the present. Accordingly, nucleotide number 368 of SEQ ID NO:4 should be changed from G to C, and amino acid number 109 of SEQ ID NO:5 should be changed from Gly to Ala.

In the second error, the triplet encoding amino acid number 138, CTC in SEQ ID NO:4 of the Sequence Listing (see highlighted attachment A and ¶4 of the Götte Declaration), should be CTG. Referring to the original specification at page 17 lines 9 and 10, although cursory examination leads one to understand how Dr. Götte read the triplet as "CTC", review of an enlarged copy (attachment D of the Götte Declaration) reveals that the third nucleotide of the triplet has a vertical element more consistent with a "G" than a "C" (¶6 of the Götte Declaration), by comparison, for example, with the first nucleotide of the triplet. Accordingly, nucleotide number 456 of SEQ ID NO:4 should be changed from C to G. Note that whether the nucleotide triplet is either CTC or CTG, in view of the degeneracy of the genetic code (attachment E of the Götte Declaration) the encoded amino acid is leucine.

In the third error, the triplet encoding amino acid number 139, CCG in SEQ ID NO:4 of the Sequence Listing (see highlighted attachment A and ¶4 of the Götte Declaration), should be GCG. As in the second error, review of an enlarged copy (attachment D of the Götte Declaration) reveals that the first nucleotide of the triplet has a vertical element more consistent with a "G" than a "C" (¶6 of the Götte Declaration), by comparison, for example, with the middle nucleotide of the triplet. In this case, the error is particularly obvious because the original disclosure at page 17 line 10 clearly indicates that the encoded amino acid is alanine and CCG, according to the genetic code (attachment E of the Götte Declaration) encodes proline. The PatentIn software translated the triplet to encode proline, so that SEQ ID NO:5 erroneously lists proline rather than alanine at the 139 position. Accordingly, nucleotide number 457 of SEQ ID NO:4 should be changed from C to G, and amino acid number 139 of SEQ ID NO:5 should be changed from Pro to Ala.

Correction of the errors is requested.

Applicants submit herewith a revised Sequence Listing in paper and computer readable form. The Sequence Listing has been amended to correct the errors described above and also been updated to reflect the application status, docket number, and the fact that the firm of Brumbaugh, Graves, Donohue & Raymond has been acquired by Baker Botts, L.L.P. The contents of the paper and computer readable forms of the submitted Sequence Listing are the same and contain no new matter.



B. INVENTOR CHET NOT LISTED

Attorneys for Applicants have informed us that the following events transpired.

Attached as Exhibit 2 is a copy of the Transmittal Letter conveying the divisional patent application which eventually issued as the '184 patent. That paper indicates that it conveyed the original signed declaration by the inventors (on p. 1 of the Transmittal) and that the original signed declaration of inventorship bearing applicants' signature was filed on December 15, 1993 (on page 2 of the Transmittal). Attached as Exhibit 3 is a copy of the Response to Missing Parts filed on December 15, 1993, with the Declaration attached. The last page of the submitted Declaration contains the name and signature of Ilan Chet, with the signature dated October 28, 1993. Thus, Ilan Chet is an inventor of the application that issued as the '184 patent.

Ilan Chet was not, however, listed on the Filing Receipt of the above-identified application (a copy of which is attached as Exhibit 4). The omission of Inventor Chet from the list of inventors was not noticed until the '184 patent issued and the list of inventors was reviewed. It is requested that Inventor Chet be added to the list of inventors upon the reissue of the '184 patent.

C. THE NAME OF THE ASSIGNEE IS MISSPELLED

The proper spelling of Assignee's name is Max-Planck-Gesellschaft zur Förderung der Wissenschaften, e.V.. An incorrect spelling was indicated by attorneys for Applicants on the Issue Fee payment sheet, with (i) the initial hyphens omitted; (ii) "Förderung" misspelled as "Furderung"; (iii) what appears to be a space between "Wissen" and "schaften", and (iv) the final "v" in lower case rather than capitalized. Please enter the correct spelling.

D. REFERENCES WERE NOT MADE OF RECORD

Attorneys for Applicants have informed us that the following events transpired.

Certain references, of record in the parent application but not in the divisional which issued as the '184 patent, had inadvertently not been submitted to the Patent Office during the course of prosecution. This error was only appreciated when the '184 patent was about to issue, and Applicants attempted to withdraw the case from issue, filing a request that a continuation application be filed, and submitting an Information Disclosure Statement. Copies of those papers are attached hereto as Exhibit 5. In addition, in a letter from Wuesthoff & Wuesthoff dated August 31, 1998, Attorneys for Applicants were informed of another reference, Legrand et al., 1987, Proc. Natl. Acad. Sci. U.S.A. 84:6750-6754, which was cited to the German Patent Office in the corresponding German patent application as representing background art.

Please make these references, all of which are now listed in the Information Disclosure Statement submitted herewith, of record.

VI. POWER OF ATTORNEY

Applicants and the assignee hereby appoint the attorneys associated with the Customer Number 21003 of the firm of Baker Botts, L.L.P., having an address at 30 Rockefeller Plaza, New York, NY 10112 as their attorneys, with full power of substitution and revocation, to prosecute this reissue application and to transact all business in the Patent and Trademark Office connected therewith, including Robert Neuner, Reg. No. 24,316; Bradley B. Geist, Reg. No. 27,551; Robert C. Scheinfeld, Reg. No. 31,300; Rochelle K. Seide Reg. No. 32,300; Gary M. Butter, Reg. No. 33,841; Lisa B. Kole, Reg. No. 35,225; Paul A. Ragusa, Reg. No. 38,587; Neil P. Sirota, Reg. No. 38,306; and Jeffrey D. Sullivan, Reg. No. 43,170.

Please address all communications regarding this application to:

Lisa B. Kole, Esq.

Baker Botts, L.L.P.

30 Rockefeller Plaza

New York, NY 10112

VII. DECLARATION

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of the Title 18 of the United States Code, and that such willful and false statements may jeopardize the validity of the application or any patent issued thereon.

Inventor	:	Jürgen Logemann
Inventor's Signature	:	_____
Date of Signature	:	_____
Residence	:	<u>67114 Limburgerhof, Germany</u>
Citizenship	:	Germany
Post Office Address	:	<u>Carl-Bosch-Str. 64</u> <u>67114 Limburgerhof, Germany</u>

Inventor	:	Guido Jach
Inventor's Signature	:	_____
Date of Signature	:	_____
Residence	:	<u>51147 Köln, Germany</u>
Citizenship	:	Germany
Post Office Address	:	<u>Nibelungenstr. 28a</u> <u>51147 Köln, Germany</u>

Inventor : Birgit Görmhardt  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 51145 Köln  
Citizenship : Germany  
Post Office Address : c/o Bramer, Staelsweg 2  
51145 Köln, Germany

Inventor : John Mundy  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 1353 Copenhagen K, Denmark  
Citizenship : U.S.  
Post Office Address : c/o University of Copenhagen,  
Institute of Molecular Biology,  
Oester Farimagsgade 2A  
1353 Copenhagen K, Denmark

Inventor (deceased)\* : Jeff Schell  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : \_\_\_\_\_  
Citizenship : Belgium  
Post Office Address : \_\_\_\_\_  
\_\_\_\_\_

Legal Successor to Jeff Schell: Elizabeth Schell-Frederick  
Legal Successor's Signature : E. Schell-Frederick  
Date of Signature : 13 December 2004  
Residence : 53179 Bonn, Germany  
Citizenship : USA / Belgium  
Post Office Address : Rolandstr. 7,  
53179 Bonn, Germany

(\* see attached copy of document of successorship, together with a translation thereof)

Inventor : Peter Eckes  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 65779 Kelkheim, Germany  
Citizenship : Germany  
Post Office Address : Gagernring 104,  
65779 Kelkheim, Germany

Inventor : Ilan Chet  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 76100 Rehovot, Israel  
Citizenship : Israel  
Post Office Address : c/o Weizmann Institute of Science  
76100 Rehovot, Israel

English translation of the Document of Successorship concerning the deceased Inventor, Mr. Schell

35 VI 684/03

2<sup>nd</sup> Sample

DOCUMENT OF SUCCESSORSHIP

Sole heiress of

Prof. Dr. Joseph Schell, born July 20, 1935

deceased on April 17, 2003, at last having residence at Köln, having Belgian Citizenship,  
is his wife:

Dr. Elizabeth Schell-Frederick, maiden name: Frederick,  
born April 6, 1938, Carl-von Linné-Weg 12, 50829 Köln.

Köln, dated November 12, 2003

District Court, Dept. 35

Reimann

Judge of District Court

written by

(Signature)

(Stamp of the District Court of Köln)

Employee of the Court

having function as

Clerk of the Court

of the Office

To: Notary Public  
Friedrich Broß  
Thomas-Mann-Str. 37  
53111 Bonn  
re: UR.-Nr.: 02B2116/PU

E R B S C H E I N

Alleinerbin des am 17.04.2003 verstorbenen, zuletzt in Köln  
wohnhaft gewesenen belgischen Staatsangehörigen

Prof. Dr. Joseph Schell, geb. 20.07.1935

ist seine Ehefrau:

Frau Dr. Elizabeth Schell-Frederick geb. Frederick,  
geb. 06.04.1938, Carl-von Linné-Weg 12, 50829 Köln.

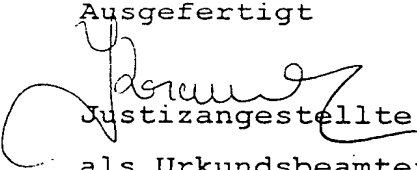
Köln, den 12.11.2003

Amtsgericht, Abt. 35

Reimann

Richter am Amtsgericht

Ausgefertigt

  
Justizangestellte  
als Urkundsbeamter  
der Geschäftsstelle



Herrn Notar  
Friedrich Broß  
Thomas-Mann-Str. 37

53111 Bonn

zu: UR.-Nr.: 03B2116/PU





A29542-FWC-I-R  
070037.0195

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Reissue Application For: United States Patent No. 5,804,184  
Title: TRANSGENIC PATHOGEN-RESISTANT ORGANISM  
Patent Appln. Filed: March 6, 1997  
Patent Issued: September 8, 1998  
Assignee: Max-Planck-Gesellschaft zur Förderung der Wissenschaften, e.V.,  
Göttingen, Germany  
Patent Group Art Unit: 1652  
Reissue Applicants: Jürgen Logemann, Guido Jach, Birgit Görnhardt, John Mundy,  
Jeff Schell, Peter Eckes and Ilan Chet  
Reissue Serial No.: 09/729,141  
Reissue Appln. Filed: December 1, 2000

REISSUE DECLARATION AND POWER OF ATTORNEY

**Mail Stop Reissue**

Commissioner for Patents  
Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

WE, Jürgen Logemann, Guido Jach, Birgit Görnhardt, John Mundy, Jeff Schell, Peter Eckes and Ilan Chet, the below named inventors, hereby declare as follows:

Our residences, post office addresses and citizenship are as stated below next to our names.

We believe that we are the original, first and joint inventors of the invention described and claimed in United States Letters Patent No. 5,804,184 ("the '184 patent"), entitled "TRANSGENIC PATHOGEN-RESISTANT ORGANISM", which issued on September 8,

1998, and of the above-identified reissue application, which is appended hereto and by which we solicit a reissue patent.

I. REVIEW OF PAPERS AND DUTY OF CANDOR

We have reviewed and understand the contents of the above-identified patent, including the issued claims, and the reissue application appended hereto, including the claims thereof.

We acknowledge the duty to disclose information which is material to the examination of this reissue application, in accordance with 37 C.F.R. §1.56.

II. PRIORITY CLAIM

The above-identified reissue application is based on the '184 patent which is a divisional of U.S.S.N. 457,797, filed June 1, 1995 and now United States Patent No. 5,689,045, which is a continuation of U.S.S.N. 134,416, filed October 8, 1993, abandoned, and we claim priority to these earlier applications under 35 U.S.C. §120. In addition, we claim priority to German Patent Application No. 42 34 131.0, filed October 9, 1992, under 35 U.S.C. §119.

III. OFFER TO SURRENDER ORIGINAL LETTERS PATENT

We and our assignee hereby offer to surrender the original letters patent, or provide an appropriate affidavit or declaration in the event that the original patent is lost, upon an indication of allowability of this reissue patent application.

IV. STATEMENT OF INOPERATIVENESS OF THE ISSUED PATENT

We believe the original patent to be wholly or partly inoperative because of error that arose without any deceptive intention on our parts as applicants therefor, which resulted in an erroneous sequence listing. In addition, certain additional errors have been noted, including (i) the omission of an inventor (Chet) from those inventors listed on the patent, despite the fact that inventor Chet had executed the Declaration of Inventorship submitted when the application that matured into the '184 patent was filed (therefore no true change in inventorship is required but the names listed on the patent should be amended); (ii) a misspelling of Assignee's name; and (iii) certain references, cited in the U.S. priority application, and one reference cited as background information in the corresponding German application, were not made of record in the divisional application which issued as the '184 patent. Each of the above-listed errors is discussed in detail below.

Every error which was corrected in the present reissue application, and is not covered by a prior/oath declaration submitted in this application, arose without any deceptive intention on the part of the applicants.

V. SPECIFICATION OF "ERRORS" RELIED UPON AND HOW THEY AROSE

A. THE ERRONEOUS SEQUENCE LISTING

The following is a description of the manner in which the errors specified below are believed to have occurred in the Sequence Listing of the '184 patent. Although the following account does not describe our own actions, on information and belief we believe it to be true.

As set forth in the attached copy of the Declaration of Dr. Anna Götte (the "Götte Declaration"; Exhibit 1), submitted in United States Patent Application Serial No. 09/138,873, a divisional application of the '184 patent, the licensee of the above-identified application notified the German Patent Law firm which employs Dr. Götte, Wuesthoff & Wuesthoff, that several errors exist in the nucleic acid and amino acid sequences set forth as SEQ ID NOS:4 and 5 (§4 of the Götte Declaration). Dr. Götte, who was the person responsible for preparing the Sequence Listing, states, in her Declaration, that the basis for these errors was an inadvertent good faith misreading of the nucleic acid sequences present in the original disclosure. When amino acid sequences corresponding to the erroneous nucleic acid sequences were generated by PatentIn computer software, they contained, in two of the three instances, an erroneous amino acid.

SEQ ID NOS: 4 and 5 provide, respectively, the nucleic acid and amino acid sequences of the PSI gene and protein from barley. The errors involve the nucleotide triplet codons for amino acid numbers 109, 138 and 139 (§4 of the Götte Declaration). Support from the original specification is provided at page 17, as contained in attachment B of the Götte Declaration, with enlarged views in attachments C and D of the Götte Declaration.

Specifically, in the first error, the triplet encoding amino acid number 109, GGC in SEQ ID NO:4 of the Sequence Listing (see highlighted attachment A of the Götte Declaration), should be GCC. This is supported by the original specification at page 17 line 7 (§6 of the Götte Declaration). Note that the amino acid numbering differs by +1 because the original methionine residue was assigned a value of -1 in the original specification but is +1 in the Sequence Listing (§5 of the Götte Declaration). The codon for amino acid number 109, amino acid number 108 in the specification, is GCC, and the encoded amino acid is alanine. Because of inadvertent misreading, this "GCC" was entered into SEQ ID NO:4 as GGC, which encodes for glycine, not alanine. Accordingly, because the PatentIn software translates GGC as encoding glycine, SEQ ID NO:5 erroneously lists glycine as amino acid number 109. This

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Correction of the errors is requested.

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Ilan Chet was not, however, listed on the Filing Receipt of the above-identified application (a copy of which is attached as Exhibit 4). The omission of Inventor Chet from the list of inventors was not noticed until the '184 patent issued and the list of inventors was reviewed. It is requested that Inventor Chet be added to the list of inventors upon the reissue of the '184 patent.

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The proper spelling of Assignee's name is Max-Planck-Gesellschaft zur Förderung der Wissenschaften, e.V.. An incorrect spelling was indicated by attorneys for Applicants on the Issue Fee payment sheet, with (i) the initial hyphens omitted; (ii) "Förderung" misspelled as "Furderung"; (iii) what appears to be a space between "Wissen" and "schaften", and (iv) the final "v" in lower case rather than capitalized. Please enter the correct spelling.

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VI. POWER OF ATTORNEY

Applicants and the assignee hereby appoint the attorneys associated with the Customer Number 21003 of the firm of Baker Botts, L.L.P., having an address at 30 Rockefeller Plaza, New York, NY 10112 as their attorneys, with full power of substitution and revocation, to prosecute this reissue application and to transact all business in the Patent and Trademark Office connected therewith, including Robert Neuner, Reg. No. 24,316; Bradley B. Geist, Reg. No. 27,551; Robert C. Scheinfeld, Reg. No. 31,300; Rochelle K. Seide Reg. No. 32,300; Gary M. Butter, Reg. No. 33,841; Lisa B. Kole, Reg. No. 35,225; Paul A. Ragusa, Reg. No. 38,587; Neil P. Sirota, Reg. No. 38,306; and Jeffrey D. Sullivan, Reg. No. 43,170.

Please address all communications regarding this application to:

Lisa B. Kole, Esq.

Baker Botts, L.L.P.

30 Rockefeller Plaza

New York, NY 10112

VII. DECLARATION

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of the Title 18 of the United States Code, and that such willful and false statements may jeopardize the validity of the application or any patent issued thereon.

Inventor	:	Jürgen Logemann
Inventor's Signature	:	_____
Date of Signature	:	_____
Residence	:	<u>67114 Limburgerhof, Germany</u>
Citizenship	:	Germany
Post Office Address	:	<u>Carl-Bosch-Str. 64</u> <u>67114 Limburgerhof, Germany</u>

Inventor	:	Guido Jach
Inventor's Signature	:	_____
Date of Signature	:	_____
Residence	:	<u>51147 Köln, Germany</u>
Citizenship	:	Germany
Post Office Address	:	<u>Nibelungenstr. 28a</u> <u>51147 Köln, Germany</u>

Inventor : Birgit Görnhardt  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 51145 Köln  
Citizenship : Germany  
Post Office Address : c/o Bramer, Staelsweg 2  
51145 Köln, Germany

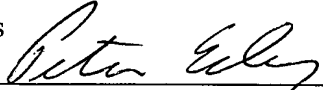
Inventor : John Mundy  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 1353 Copenhagen K, Denmark  
Citizenship : U.S.  
Post Office Address : c/o University of Copenhagen,  
Institute of Molecular Biology,  
Oester Farimagsgade 2A  
1353 Copenhagen K, Denmark



Inventor (deceased)\* : Jeff Schell  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : \_\_\_\_\_  
Citizenship : Belgium  
Post Office Address : \_\_\_\_\_  
\_\_\_\_\_

Legal Successor to Jeff Schell: Elizabeth Schell-Frederick  
Legal Successor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 53179 Bonn, Germany  
Citizenship : \_\_\_\_\_  
Post Office Address : Rolandstr. 7,  
53179 Bonn, Germany

(\* see attached copy of document of successorship, together with a translation thereof)

Inventor : Peter Eckes  
Inventor's Signature :   
Date of Signature : 25.11.2004  
Residence : 65779 Kelkheim, Germany  
Citizenship : Germany  
Post Office Address : Gagering 104,  
65779 Kelkheim, Germany

Inventor : Ilan Chet  
Inventor's Signature :  
Date of Signature :  
Residence : 76100 Rehovot, Israel  
Citizenship : Israel  
Post Office Address : c/o neve metz no. 14, Weizmann Institute of Science  
76100 Rehovot, Israel

English translation of the Document of Successorship concerning the deceased Inventor, Mr. Schell

35 VI 684/03

2<sup>nd</sup> Sample

DOCUMENT OF SUCCESSORSHIP

Sole heiress of

Prof. Dr. Joseph Schell, born July 20, 1935

deceased on April 17, 2003, at last having residence at Köln, having Belgian Citizenship,  
is his wife:

Dr. Elizabeth Schell-Frederick, maiden name: Frederick,  
born April 6, 1938, Carl-von Linné-Weg 12, 50829 Köln.

Köln, dated November 12, 2003

District Court, Dept. 35

Reimann

Judge of District Court

written by

(Signature)

(Stamp of the District Court of Köln)

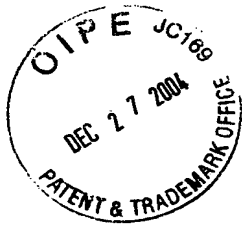
Employee of the Court

having function as

Clerk of the Court

of the Office

To: Notary Public  
Friedrich Broß  
Thomas-Mann-Str. 37  
53111 Bonn  
re: UR.-Nr.: 02B2116/PU



A29542-FWC-I-R  
070037.0195

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Reissue Application For: United States Patent No. 5,804,184  
Title: TRANSGENIC PATHOGEN-RESISTANT ORGANISM  
Patent Appln. Filed: March 6, 1997  
Patent Issued: September 8, 1998  
Assignee: Max-Planck-Gesellschaft zur Förderung der Wissenschaften, e.V.,  
Göttingen, Germany  
Patent Group Art Unit: 1652  
Reissue Applicants: Jürgen Logemann, Guido Jach, Birgit Görnhardt, John Mundy,  
Jeff Schell, Peter Eckes and Ilan Chet  
Reissue Serial No.: 09/729,141  
Reissue Appln. Filed: December 1, 2000

REISSUE DECLARATION AND POWER OF ATTORNEY

**Mail Stop Reissue**

Commissioner for Patents  
Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

WE, Jürgen Logemann, Guido Jach, Birgit Görnhardt, John Mundy, Jeff Schell, Peter Eckes and Ilan Chet, the below named inventors, hereby declare as follows:

Our residences, post office addresses and citizenship are as stated below next to our names.

We believe that we are the original, first and joint inventors of the invention described and claimed in United States Letters Patent No. 5,804,184 ("the '184 patent"), entitled "TRANSGENIC PATHOGEN-RESISTANT ORGANISM", which issued on September 8,

1998, and of the above-identified reissue application, which is appended hereto and by which we solicit a reissue patent.

I. REVIEW OF PAPERS AND DUTY OF CANDOR

We have reviewed and understand the contents of the above-identified patent, including the issued claims, and the reissue application appended hereto, including the claims thereof.

We acknowledge the duty to disclose information which is material to the examination of this reissue application, in accordance with 37 C.F.R. §1.56.

II. PRIORITY CLAIM

The above-identified reissue application is based on the '184 patent which is a divisional of U.S.S.N. 457,797, filed June 1, 1995 and now United States Patent No. 5,689,045, which is a continuation of U.S.S.N. 134,416, filed October 8, 1993, abandoned, and we claim priority to these earlier applications under 35 U.S.C. §120. In addition, we claim priority to German Patent Application No. 42 34 131.0, filed October 9, 1992, under 35 U.S.C. §119.

III. OFFER TO SURRENDER ORIGINAL LETTERS PATENT

We and our assignee hereby offer to surrender the original letters patent, or provide an appropriate affidavit or declaration in the event that the original patent is lost, upon an indication of allowability of this reissue patent application.

IV. STATEMENT OF INOPERATIVENESS OF THE ISSUED PATENT

We believe the original patent to be wholly or partly inoperative because of error that arose without any deceptive intention on our parts as applicants therefor, which resulted in an erroneous sequence listing. In addition, certain additional errors have been noted, including (i) the omission of an inventor (Chet) from those inventors listed on the patent, despite the fact that inventor Chet had executed the Declaration of Inventorship submitted when the application that matured into the '184 patent was filed (therefore no true change in inventorship is required but the names listed on the patent should be amended); (ii) a misspelling of Assignee's name; and (iii) certain references, cited in the U.S. priority application, and one reference cited as background information in the corresponding German application, were not made of record in the divisional application which issued as the '184 patent. Each of the above-listed errors is discussed in detail below.

Every error which was corrected in the present reissue application, and is not covered by a prior/oath declaration submitted in this application, arose without any deceptive intention on the part of the applicants.

V. SPECIFICATION OF "ERRORS" RELIED UPON AND HOW THEY AROSE

A. THE ERRONEOUS SEQUENCE LISTING

The following is a description of the manner in which the errors specified below are believed to have occurred in the Sequence Listing of the '184 patent. Although the following account does not describe our own actions, on information and belief we believe it to be true.

As set forth in the attached copy of the Declaration of Dr. Anna Götte (the "Götte Declaration"; Exhibit 1), submitted in United States Patent Application Serial No. 09/138,873, a divisional application of the '184 patent, the licensee of the above-identified application notified the German Patent Law firm which employs Dr. Götte, Wuesthoff & Wuesthoff, that several errors exist in the nucleic acid and amino acid sequences set forth as SEQ ID NOS:4 and 5 (§4 of the Götte Declaration). Dr. Götte, who was the person responsible for preparing the Sequence Listing, states, in her Declaration, that the basis for these errors was an inadvertent good faith misreading of the nucleic acid sequences present in the original disclosure. When amino acid sequences corresponding to the erroneous nucleic acid sequences were generated by PatentIn computer software, they contained, in two of the three instances, an erroneous amino acid.

SEQ ID NOS: 4 and 5 provide, respectively, the nucleic acid and amino acid sequences of the PSI gene and protein from barley. The errors involve the nucleotide triplet codons for amino acid numbers 109, 138 and 139 (§4 of the Götte Declaration). Support from the original specification is provided at page 17, as contained in attachment B of the Götte Declaration, with enlarged views in attachments C and D of the Götte Declaration.

Specifically, in the first error, the triplet encoding amino acid number 109, GGC in SEQ ID NO:4 of the Sequence Listing (see highlighted attachment A of the Götte Declaration), should be GCC. This is supported by the original specification at page 17 line 7 (§6 of the Götte Declaration). Note that the amino acid numbering differs by +1 because the original methionine residue was assigned a value of -1 in the original specification but is +1 in the Sequence Listing (§5 of the Götte Declaration). The codon for amino acid number 109, amino acid number 108 in the specification, is GCC, and the encoded amino acid is alanine. Because of inadvertent misreading, this "GCC" was entered into SEQ ID NO:4 as GGC, which encodes for glycine, not alanine. Accordingly, because the PatentIn software translates GGC as encoding glycine, SEQ ID NO:5 erroneously lists glycine as amino acid number 109. This

discrepancy between the amino acid listed for position 109 in the specification and that generated by PatentIn is a confirmation that an error had been made, but was inadvertently overlooked until the present. Accordingly, nucleotide number 368 of SEQ ID NO:4 should be changed from G to C, and amino acid number 109 of SEQ ID NO:5 should be changed from Gly to Ala.

In the second error, the triplet encoding amino acid number 138, CTC in SEQ ID NO:4 of the Sequence Listing (see highlighted attachment A and ¶4 of the Götte Declaration), should be CTG. Referring to the original specification at page 17 lines 9 and 10, although cursory examination leads one to understand how Dr. Götte read the triplet as "CTC", review of an enlarged copy (attachment D of the Götte Declaration) reveals that the third nucleotide of the triplet has a vertical element more consistent with a "G" than a "C" (¶6 of the Götte Declaration), by comparison, for example, with the first nucleotide of the triplet. Accordingly, nucleotide number 456 of SEQ ID NO:4 should be changed from C to G. Note that whether the nucleotide triplet is either CTC or CTG, in view of the degeneracy of the genetic code (attachment E of the Götte Declaration) the encoded amino acid is leucine.

In the third error, the triplet encoding amino acid number 139, CCG in SEQ ID NO:4 of the Sequence Listing (see highlighted attachment A and ¶4 of the Götte Declaration), should be GCG. As in the second error, review of an enlarged copy (attachment D of the Götte Declaration) reveals that the first nucleotide of the triplet has a vertical element more consistent with a "G" than a "C" (¶6 of the Götte Declaration), by comparison, for example, with the middle nucleotide of the triplet. In this case, the error is particularly obvious because the original disclosure at page 17 line 10 clearly indicates that the encoded amino acid is alanine and CCG, according to the genetic code (attachment E of the Götte Declaration) encodes proline. The PatentIn software translated the triplet to encode proline, so that SEQ ID NO:5 erroneously lists proline rather than alanine at the 139 position. Accordingly, nucleotide number 457 of SEQ ID NO:4 should be changed from C to G, and amino acid number 139 of SEQ ID NO:5 should be changed from Pro to Ala.

Correction of the errors is requested.

Applicants submit herewith a revised Sequence Listing in paper and computer readable form. The Sequence Listing has been amended to correct the errors described above and also been updated to reflect the application status, docket number, and the fact that the firm of Brumbaugh, Graves, Donohue & Raymond has been acquired by Baker Botts, L.L.P. The contents of the paper and computer readable forms of the submitted Sequence Listing are the same and contain no new matter.

B. INVENTOR CHET NOT LISTED

Attorneys for Applicants have informed us that the following events transpired.

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Please address all communications regarding this application to:

Lisa B. Kole, Esq.

Baker Botts, L.L.P.

30 Rockefeller Plaza

New York, NY 10112

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Inventor	:	Jürgen Logemann
Inventor's Signature	:	_____
Date of Signature	:	_____
Residence	:	<u>67114 Limburgerhof, Germany</u>
Citizenship	:	Germany
Post Office Address	:	<u>Carl-Bosch-Str. 64</u> <u>67114 Limburgerhof, Germany</u>

Inventor	:	Guido Jach
Inventor's Signature	:	_____
Date of Signature	:	_____
Residence	:	<u>51147 Köln, Germany</u>
Citizenship	:	Germany
Post Office Address	:	<u>Nibelungenstr. 28a</u> <u>51147 Köln, Germany</u>

Inventor : Birgit Görnhardt  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 51145 Köln  
Citizenship : Germany  
Post Office Address : c/o Bramer, Staelsweg 2  
51145 Köln, Germany

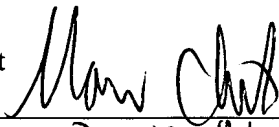
Inventor : John Mundy  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 1353 Copenhagen K, Denmark  
Citizenship : U.S.  
Post Office Address : c/o University of Copenhagen,  
Institute of Molecular Biology,  
Oester Farimagsgade 2A  
1353 Copenhagen K, Denmark

Inventor (deceased)\* : Jeff Schell  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : \_\_\_\_\_  
Citizenship : Belgium  
Post Office Address : \_\_\_\_\_  
\_\_\_\_\_

Legal Successor to Jeff Schell: Elizabeth Schell-Frederick  
Legal Successor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 53179 Bonn, Germany  
Citizenship : \_\_\_\_\_  
Post Office Address : Rolandstr. 7,  
53179 Bonn, Germany

(\* see attached copy of document of successorship, together with a translation thereof)

Inventor : Peter Eckes  
Inventor's Signature : \_\_\_\_\_  
Date of Signature : \_\_\_\_\_  
Residence : 65779 Kelkheim, Germany  
Citizenship : Germany  
Post Office Address : Gagernring 104,  
65779 Kelkheim, Germany

Inventor : Ilan Chet   
Inventor's Signature : \_\_\_\_\_  
Date of Signature : 20.11.04  
Residence : 76100 Rehovot, Israel  
Citizenship : Israel  
Post Office Address : c/o neve metz no. 14, Weizmann Institute of Science  
76100 Rehovot, Israel

English translation of the Document of Successorship concerning the deceased Inventor, Mr. Schell

35 VI 684/03

2<sup>nd</sup> Sample

DOCUMENT OF SUCCESSORSHIP

Sole heiress of

Prof. Dr. Joseph Schell, born July 20, 1935

deceased on April 17, 2003, at last having residence at Köln, having Belgian Citizenship,  
is his wife:

Dr. Elizabeth Schell-Frederick, maiden name: Frederick,  
born April 6, 1938, Carl-von Linné-Weg 12, 50829 Köln.

Köln, dated November 12, 2003

District Court, Dept. 35

Reimann

Judge of District Court

written by

(Signature)

(Stamp of the District Court of Köln)

Employee of the Court

having function as

Clerk of the Court

of the Office

To: Notary Public  
Friedrich Broß  
Thomas-Mann-Str. 37  
53111 Bonn  
re: UR.-Nr.: 02B2116/PU